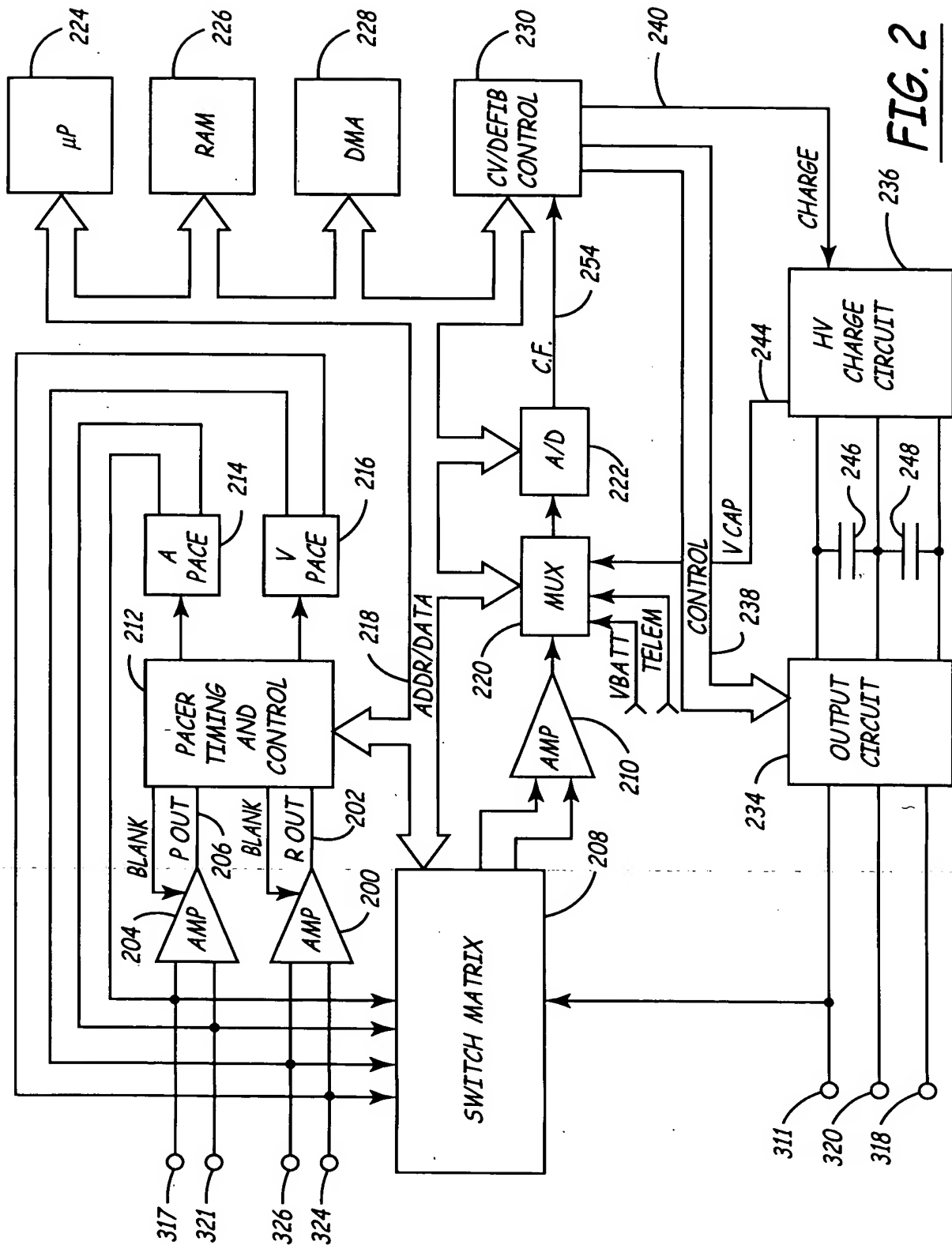
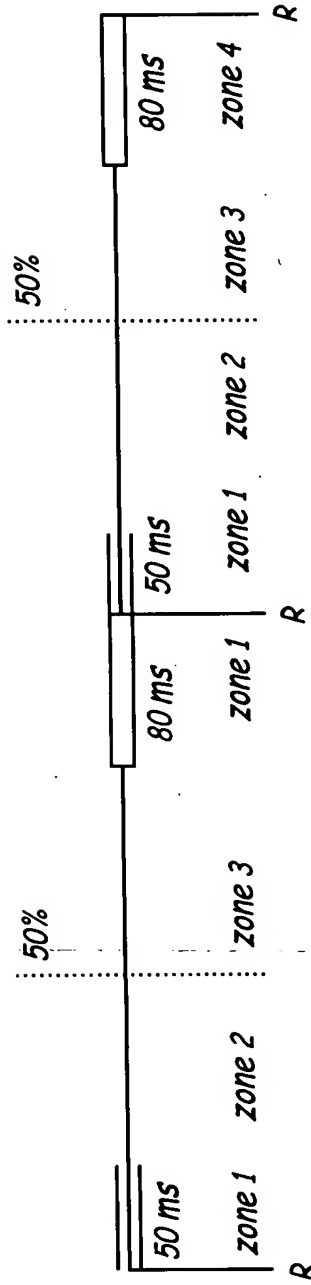
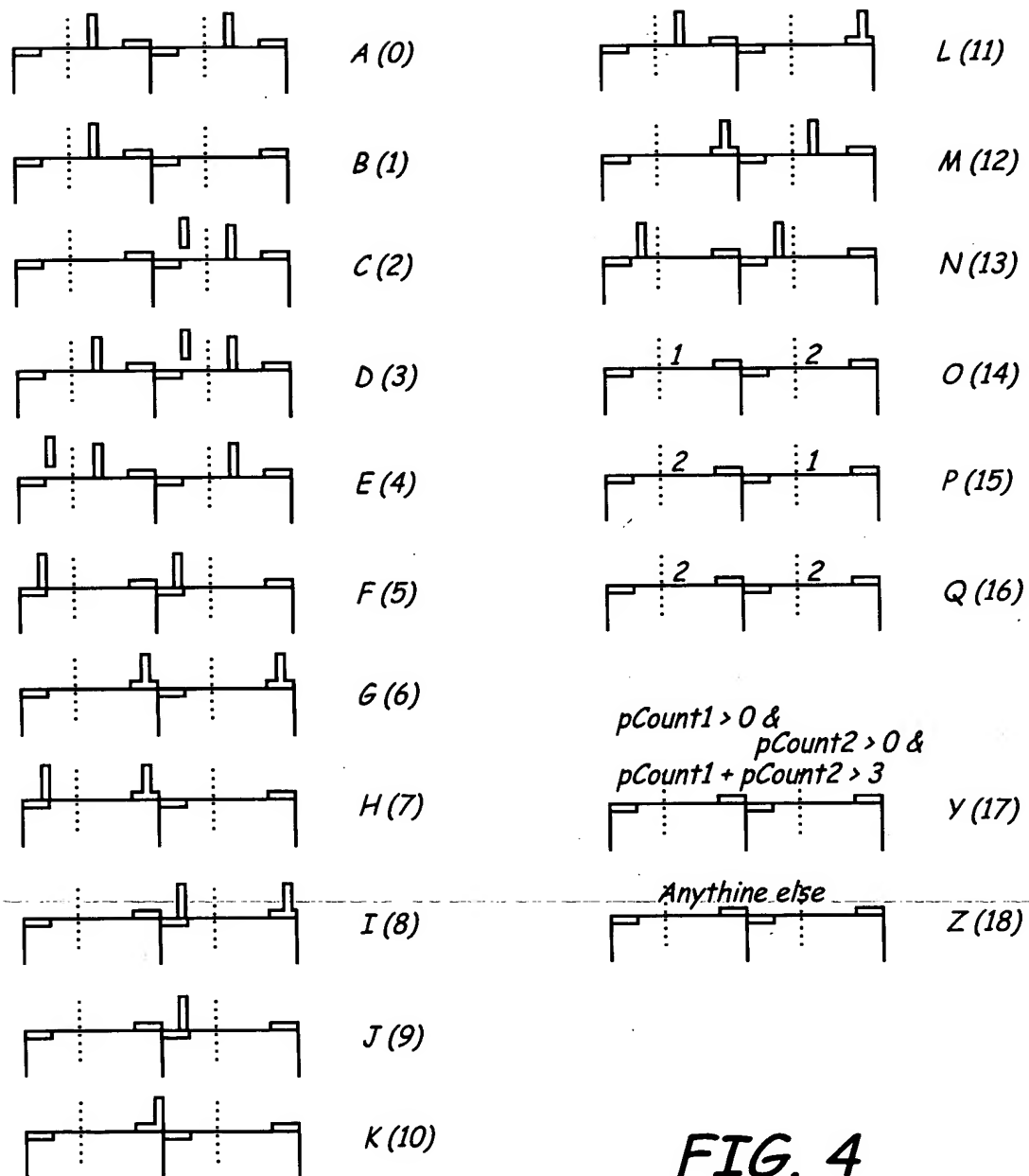


FIG. 1



FIG. 3

FIG. 4

| PRIOR R EVENT<br>BEAT CODE: | CURRENT R EVENT BEAT CODE: |        |        |        |        |        |        |        |        |        |
|-----------------------------|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                             | 0                          | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      |
| 0                           | 0 [A]                      | 18 [Z] | 11 [L] | 18 [Z] | 14 [O] | 14 [O] | 14 [O] | 1 [B]  | 17 [Y] | 3 [D]  |
| 1                           | 18 [Z]                     | 5 [F]  | 18 [Z] | 18 [Z] | 14 [O] | 14 [O] | 14 [O] | 18 [Z] | 17 [Y] | 14 [O] |
| 2                           | 12 [M]                     | 18 [Z] | 5 [G]  | 18 [Z] | 14 [O] | 14 [O] | 14 [O] | 10 [K] | 17 [Y] | 14 [O] |
| 3                           | 18 [Z]                     | 18 [Z] | 18 [Z] | 13 [N] | 14 [O] | 14 [O] | 14 [O] | 18 [Z] | 17 [Y] | 14 [O] |
| 4                           | 15 [P]                     | 15 [P] | 15 [P] | 15 [P] | 16 [Q] | 16 [Q] | 16 [Q] | 18 [Z] | 17 [Y] | 16 [Q] |
| 5                           | 15 [P]                     | 15 [P] | 15 [P] | 15 [P] | 16 [Q] | 16 [Q] | 16 [Q] | 7 [H]  | 17 [Y] | 16 [Q] |
| 6                           | 15 [P]                     | 15 [P] | 15 [P] | 15 [P] | 16 [Q] | 16 [Q] | 16 [Q] | 18 [Z] | 17 [Y] | 16 [Q] |
| 7                           | 18 [Z]                     | 9 [J]  | 18 [Z] | 18 [Z] | 2 [C]  | 8 [I]  | 18 [Z] | 18 [Z] | 18 [Z] | 2 [C]  |
| 8                           | 17 [Y]                     | 17 [Y] | 17 [Y] | 17 [Y] | 17 [Y] | 17 [Y] | 17 [Y] | 18 [Z] | 17 [Y] | 17 [Y] |
| 9                           | 4 [E]                      | 15 [P] | 15 [P] | 15 [P] | 16 [Q] | 16 [Q] | 16 [Q] | 18 [Z] | 17 [Y] | 16 [Q] |

FIG. 5

| PATTERN<br>CODE: | CURRENT STATE |           |           |            |           |            |             |            |            |            |
|------------------|---------------|-----------|-----------|------------|-----------|------------|-------------|------------|------------|------------|
|                  | 0<br>[RESET]  | 19<br>[A] | 38<br>[B] | 57<br>[CD] | 76<br>[E] | 95<br>[A1] | 114<br>[A2] | 133<br>[L] | 152<br>[M] | 171<br>[Z] |
| [A] 0            | 19            | 19        | 0         | 0          | 114       | 114        | 19          | 0          | 95         | 95         |
| [B] 1            | 38            | 38        | 0         | 0          | 0         | 0          | 0           | 0          | 0          | 0          |
| [C] 2            | 57            | 0         | 57        | 0          | 0         | 0          | 0           | 0          | 0          | 0          |
| [D] 3            | 57            | 57        | 0         | 0          | 0         | 0          | 0           | 0          | 0          | 0          |
| [E] 4            | 76            | 0         | 0         | 76         | 0         | 0          | 0           | 0          | 0          | 0          |
| [F] 5            | 0             | 0         | 0         | 0          | 0         | 0          | 0           | 0          | 0          | 0          |
| [G] 6            | 0             | 0         | 0         | 0          | 0         | 0          | 0           | 0          | 0          | 0          |
| [H] 7            | 0             | 0         | 0         | 0          | 0         | 0          | 0           | 0          | 0          | 0          |
| [I] 8            | 0             | 0         | 0         | 0          | 0         | 0          | 0           | 0          | 0          | 0          |
| [J] 9            | 0             | 0         | 0         | 0          | 0         | 0          | 0           | 0          | 0          | 0          |
| [K] 10           | 0             | 0         | 0         | 0          | 0         | 0          | 0           | 0          | 0          | 0          |
| [L] 11           | 133           | 133       | 0         | 0          | 0         | 0          | 0           | 0          | 0          | 0          |
| [M] 12           | 152           | 0         | 0         | 0          | 0         | 0          | 0           | 152        | 0          | 0          |
| [N] 13           | 0             | 0         | 0         | 0          | 0         | 0          | 0           | 0          | 0          | 0          |
| [O] 14           | 0             | 0         | 0         | 0          | 0         | 0          | 0           | 0          | 0          | 0          |
| [P] 15           | 0             | 0         | 0         | 0          | 0         | 0          | 0           | 0          | 0          | 0          |
| [Q] 16           | 0             | 0         | 0         | 0          | 0         | 0          | 0           | 0          | 0          | 0          |
| [Y] 17           | 0             | 0         | 0         | 0          | 0         | 0          | 0           | 0          | 0          | 0          |
| [Z] 18           | 171           | 0         | 171       | 0          | 0         | 0          | 0           | 0          | 0          | 0          |

FIG. 6

| PATTERN<br>CODE: | CURRENT STATE |           |            |            |           |           |            |            |             |             |             |             |
|------------------|---------------|-----------|------------|------------|-----------|-----------|------------|------------|-------------|-------------|-------------|-------------|
|                  | [RESET]<br>0  | [O]<br>19 | [P1]<br>38 | [P2]<br>57 | [Q]<br>76 | [L]<br>95 | [M]<br>114 | [A]<br>133 | [N1]<br>152 | [N2]<br>171 | [Z1]<br>190 | [Z2]<br>209 |
| [A] 0            | 133           | 0         | 133        | 0          | 0         | 0         | 0          | 0          | 0           | 0           | 0           | 0           |
| [B] 1            | 0             | 0         | 0          | 0          | 0         | 0         | 0          | 0          | 0           | 0           | 0           | 0           |
| [C] 2            | 0             | 0         | 0          | 0          | 0         | 0         | 0          | 0          | 0           | 0           | 0           | 0           |
| [D] 3            | 0             | 0         | 0          | 0          | 0         | 0         | 0          | 0          | 0           | 0           | 0           | 0           |
| [E] 4            | 0             | 0         | 0          | 0          | 0         | 0         | 0          | 0          | 0           | 0           | 0           | 0           |
| [F] 5            | 0             | 0         | 0          | 0          | 0         | 0         | 0          | 0          | 0           | 0           | 0           | 0           |
| [G] 6            | 0             | 0         | 0          | 0          | 0         | 0         | 0          | 0          | 0           | 0           | 0           | 0           |
| [H] 7            | 0             | 0         | 0          | 0          | 0         | 0         | 0          | 0          | 0           | 0           | 0           | 0           |
| [I] 8            | 0             | 0         | 0          | 0          | 0         | 0         | 0          | 0          | 0           | 0           | 0           | 0           |
| [J] 9            | 0             | 0         | 0          | 0          | 0         | 0         | 0          | 0          | 0           | 0           | 0           | 0           |
| [K] 10           | 0             | 0         | 0          | 0          | 0         | 0         | 0          | 0          | 0           | 0           | 0           | 0           |
| [L] 11           | 95            | 0         | 0          | 95         | 0         | 0         | 0          | 0          | 0           | 0           | 0           | 0           |
| [M] 12           | 114           | 0         | 0          | 0          | 0         | 114       | 0          | 0          | 0           | 0           | 0           | 0           |
| [N] 13           | 152           | 0         | 152        | 171        | 0         | 0         | 0          | 171        | 171         | 0           | 171         | 0           |
| [O] 14           | 19            | 0         | 19         | 19         | 0         | 0         | 19         | 19         | 19          | 19          | 19          | 19          |
| [P] 15           | 38            | 38        | 0          | 0          | 57        | 0         | 0          | 0          | 0           | 0           | 0           | 0           |
| [Q] 16           | 76            | 76        | 0          | 0          | 0         | 0         | 0          | 0          | 0           | 0           | 0           | 0           |
| [Y] 17           | 0             | 0         | 0          | 0          | 0         | 0         | 0          | 0          | 0           | 0           | 0           | 0           |
| [Z] 18           | 190           | 0         | 190        | 209        | 0         | 0         | 0          | 209        | 209         | 0           | 209         | 0           |

FIG. 7

| PATTERN<br>CODE: | CURRENT STATE |           |             |           |            |            |            |             |             |             |
|------------------|---------------|-----------|-------------|-----------|------------|------------|------------|-------------|-------------|-------------|
|                  | [RESET]<br>0  | [Y]<br>19 | [OQD]<br>38 | [P]<br>57 | [N1]<br>76 | [N2]<br>95 | [Y]<br>114 | [G1]<br>133 | [G2]<br>152 | [G3]<br>171 |
| [A] 0            | 114           | 0         | 0           | 114       | 0          | 0          | 0          | 0           | 0           | 0           |
| [B] 1            | 0             | 0         | 0           | 0         | 0          | 0          | 0          | 0           | 0           | 0           |
| [C] 2            | 0             | 0         | 0           | 0         | 0          | 0          | 0          | 0           | 0           | 0           |
| [D] 3            | 38            | 0         | 0           | 38        | 0          | 0          | 0          | 0           | 0           | 0           |
| [E] 4            | 0             | 0         | 0           | 0         | 0          | 0          | 0          | 0           | 0           | 0           |
| [F] 5            | 114           | 0         | 0           | 114       | 0          | 0          | 0          | 0           | 0           | 0           |
| [G] 6            | 133           | 133       | 133         | 133       | 0          | 0          | 0          | 152         | 171         | 0           |
| [H] 7            | 0             | 0         | 0           | 0         | 0          | 0          | 0          | 0           | 0           | 0           |
| [I] 8            | 0             | 0         | 0           | 0         | 0          | 0          | 0          | 0           | 0           | 0           |
| [J] 9            | 0             | 0         | 0           | 0         | 0          | 0          | 0          | 0           | 0           | 0           |
| [K] 10           | 0             | 0         | 0           | 0         | 0          | 0          | 0          | 0           | 0           | 0           |
| [L] 11           | 114           | 0         | 0           | 114       | 0          | 0          | 0          | 0           | 0           | 0           |
| [M] 12           | 114           | 0         | 0           | 114       | 0          | 0          | 0          | 0           | 0           | 0           |
| [N] 13           | 76            | 76        | 76          | 76        | 95         | 0          | 0          | 76          | 76          | 76          |
| [O] 14           | 38            | 38        | 0           | 38        | 38         | 0          | 38         | 38          | 0           | 0           |
| [P] 15           | 57            | 57        | 57          | 0         | 0          | 0          | 0          | 57          | 57          | 57          |
| [Q] 16           | 38            | 38        | 38          | 0         | 0          | 0          | 0          | 38          | 38          | 38          |
| [Y] 17           | 19            | 19        | 19          | 19        | 19         | 19         | 0          | 19          | 19          | 19          |
| [Z] 18           | 0             | 0         | 0           | 0         | 0          | 0          | 0          | 0           | 0           | 0           |

FIG. 8

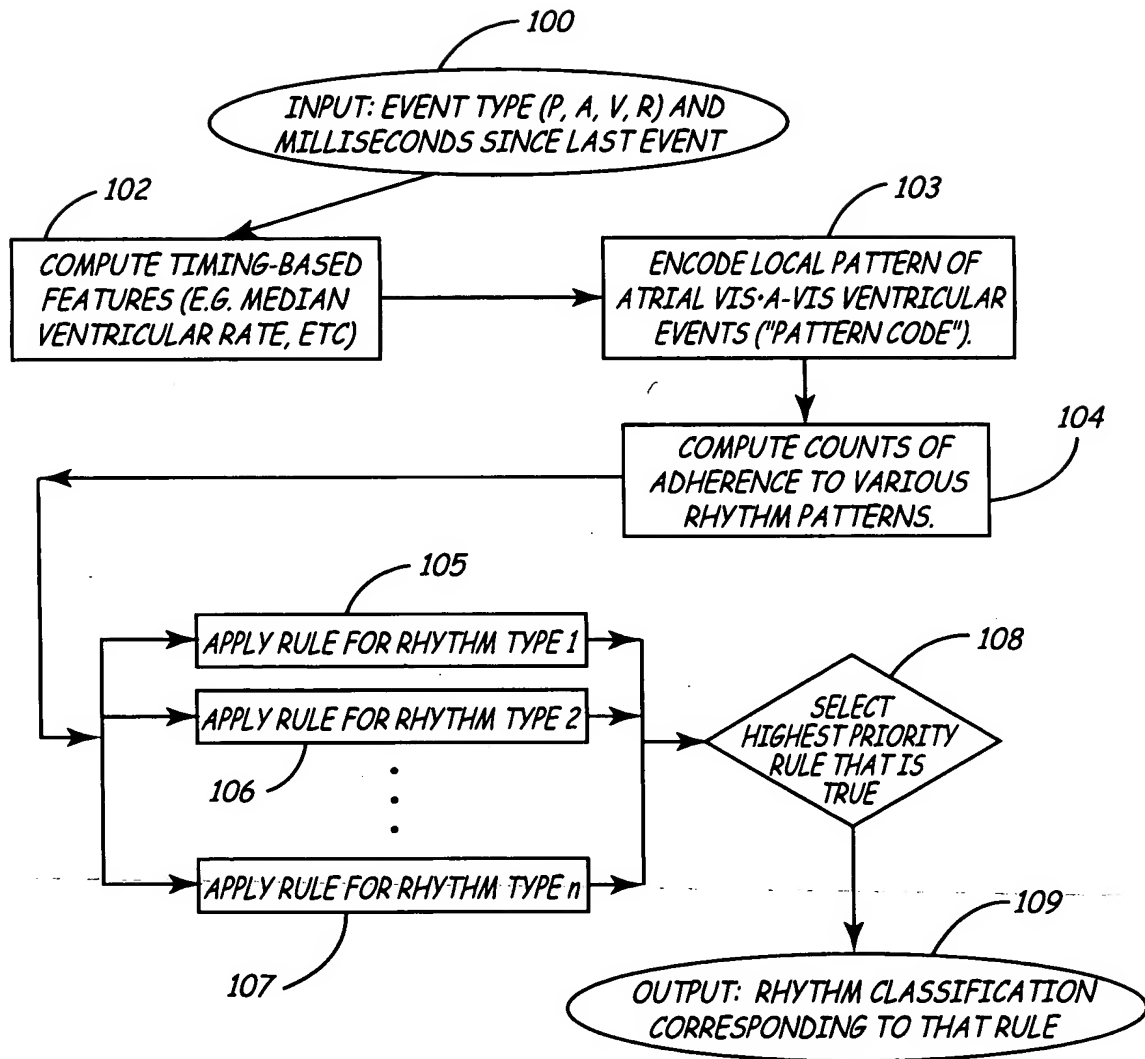
| PATTERN<br>CODE: | CURRENT STATE |            |
|------------------|---------------|------------|
|                  | [RESET]<br>0  | [OY]<br>19 |
| [A] 0            | 0             | 0          |
| [B] 1            | 0             | 0          |
| [C] 2            | 0             | 0          |
| [D] 3            | 0             | 0          |
| [E] 4            | 0             | 0          |
| [F] 5            | 0             | 0          |
| [G] 6            | 0             | 0          |
| [H] 7            | 0             | 0          |
| [I] 8            | 0             | 0          |
| [J] 9            | 0             | 0          |
| [K] 10           | 0             | 0          |
| [L] 11           | 0             | 0          |
| [M] 12           | 0             | 0          |
| [N] 13           | 0             | 0          |
| [O] 14           | 0             | 0          |
| [P] 15           | 0             | 0          |
| [Q] 16           | 19            | 19         |
| [Y] 17           | 19            | 19         |
| [Z] 18           | 0             | 0          |

FIG. 9

| PATTERN<br>CODE: | CURRENT STATE |            |           |            |            |           |            |
|------------------|---------------|------------|-----------|------------|------------|-----------|------------|
|                  | [RESET]<br>0  | [FG]<br>19 | [O]<br>38 | [H1]<br>57 | [H2]<br>76 | [J]<br>95 | [N]<br>114 |
| [A] 0            | 0             | 0          | 0         | 0          | 0          | 0         | 0          |
| [B] 1            | 0             | 0          | 0         | 0          | 0          | 0         | 0          |
| [C] 2            | 0             | 0          | 0         | 0          | 0          | 0         | 0          |
| [D] 3            | 0             | 0          | 0         | 0          | 0          | 0         | 0          |
| [E] 4            | 0             | 0          | 0         | 0          | 0          | 0         | 0          |
| [F] 5            | 19            | 19         | 0         | 0          | 0          | 19        | 0          |
| [G] 6            | 19            | 19         | 0         | 0          | 0          | 19        | 0          |
| [H] 7            | 57            | 0          | 57        | 0          | 0          | 0         | 76         |
| [I] 8            | 114           | 0          | 0         | 114        | 0          | 0         | 0          |
| [J] 9            | 95            | 0          | 0         | 95         | 95         | 0         | 0          |
| [K] 10           | 0             | 0          | 0         | 0          | 0          | 0         | 0          |
| [L] 11           | 0             | 0          | 0         | 0          | 0          | 0         | 0          |
| [M] 12           | 0             | 0          | 0         | 0          | 0          | 0         | 0          |
| [N] 13           | 0             | 0          | 0         | 0          | 0          | 0         | 0          |
| [O] 14           | 38            | 38         | 0         | 0          | 0          | 0         | 0          |
| [P] 15           | 0             | 0          | 0         | 0          | 0          | 0         | 0          |
| [Q] 16           | 0             | 0          | 0         | 0          | 0          | 0         | 0          |
| [Y] 17           | 0             | 0          | 0         | 0          | 0          | 0         | 0          |
| [Z] 18           | 0             | 0          | 0         | 0          | 0          | 0         | 0          |

FIG. 10



FIG. 11